Stara

Constant Evolution

BRUTTUS 6000

Spreader

Instruction Manual

Quality Certificate Stara Constant Evolution ISO 9001

ORGULHO DE SER BRASILEIRO

Constant Evolution

BRUTTUS 6000
SPREADER

INSTRUCTION MANUAL

STARA S/A - INDÚSTRIA DE IMPLEMENTOS AGRÍCOLAS
CNPJ: 91.495.499/0001-00
Av. Stara, 519 - Caixa Postal 53
Não-Me-Toque - RS - Brazil - CEP: 99470-000
Telephone/Fax: (54) 3332-2800
e-mail: stara@stara.com.br
Home page: www.stara.com.br

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CONTENT

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FOREWORD

This user manual was designed to guide you in the operation of your machine, its components, and to instruct you on operation procedures and maintenance.

Read this manual thoroughly before using this product for the first time, and make sure to take all the necessary safety precautions.

This manual should be considered as a fundamental part and should be well cared for so that it is always available for review since it contains instructions starting with the purchase of the implement or machine to maintenance and long term care. At the end, there are also instructions on Warranty Terms, Warranty Registration, Technical Delivery and Technical Inspection.

Due to the constant evolution of our products, Stara reserves the right to make changes to the contents of this manual without prior notice.

This manual is available on our site www.stara.com.br, along with information on our entire product line.

INTRODUCTION

Dear client, you have just become the proud owner of an implement made with the latest cutting-edge technology, having the direct participation of farmers in its development.

With the modernization of agriculture, it is necessary to meet the modern practices of soil preparation of precision farming and base soil adjustments.

To meet these needs, Stara released the Bruttus 6000, which is a spreader for soil stabilizers and seeds, designed to work in different topographies and soil types, offering great precision in its operation, with low maintenance costs.

This spreader of soil stabilizers, the Bruttus 6000 is accompanied by this manual, where you'll find all the instructions regarding its use, maintenance and warranty.

Stara offers its technical assistance team to assist you and/or your dealership, in the hopes that you will optimize the use of your implement.

1 - MAIN COMPONENTS

The Bruttus 6000 soil stabilizers and seeds spreader is made-up of the following basic components:

A - Chassis

B - Hitch

C - Wheel assembly

D - Hopper

E - Conveyor belt

F - Protection grating

G - Support stand

H - Slide-gate

I - Side transmission assembly

J - Windbreaker curtains

K - Application rate reducer assembly

L - Load reducer caps

M - Agitators

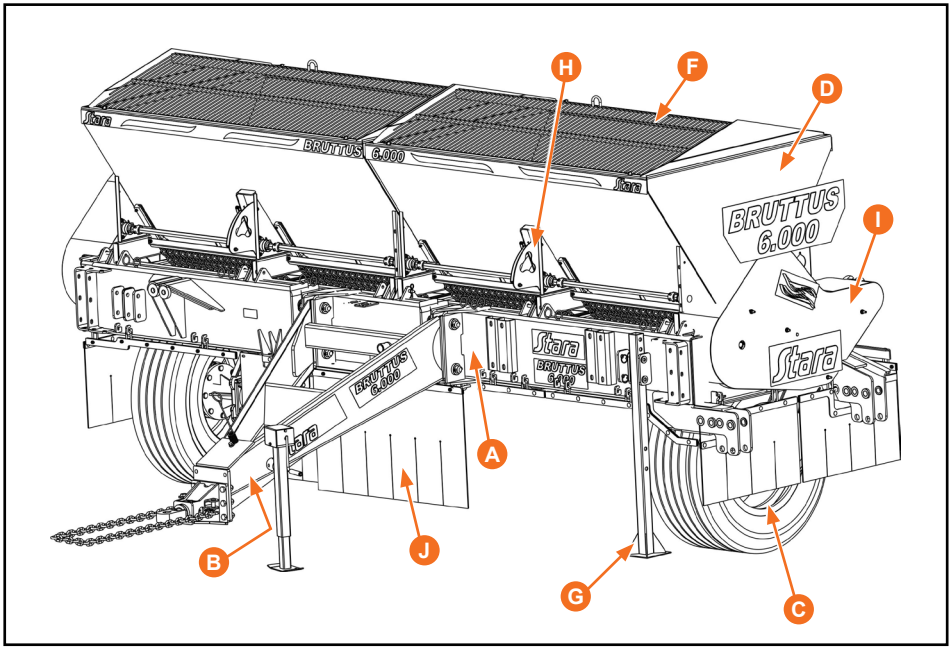

Figure 1

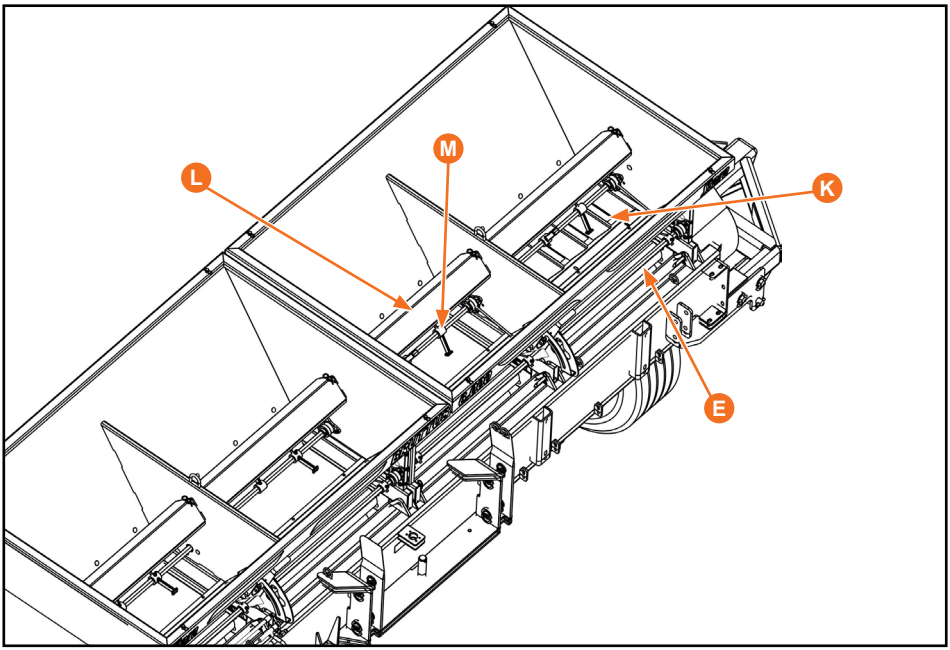

Figure 2

2 - IDENTIFICATION

Figure 3

All of Stara's implements have and identification plate, which lists the weight, capacity, model, date manufactured and its serial number.

When requesting parts or any information at your dealership, mention the information which identifies your implement.

The identification plate (Figure 3) is fixed to the chassis of the implement.

3 - TECHNICAL SPECIFICATIONS

Length	3,620 mm	
Height	2,516 mm	
Width	5,272 mm	
Wheel span	4,092 mm	
Application width	4,000 mm	
Weight	3,300 kg	
Load and volume capacity	6,000 kg/3m³	
Output rates	25 to 8,000 kg	
Working speeds	4 to 15 km/h	
Minimum power requirements	105 hp	
Rims and tires allowed	Standard wheels	2 rims, DW 13”x 15.5” - heavy-duty.
		2 tires, 385/65”x 22.5”.
	Optional transport wheels	2 rims, DW 7”x 16”; 6 holes - heavy-duty.
		2 tires, 10.5/65”x 16”- 10 ply with inner-tube.
Accessories	Output rate reducer Kit for fertilizers (granular) and seeds (small).	
Optional	Transmission system for variable rate applications.	
	Row markers.	

Table 1

4 - DIMENSIONS

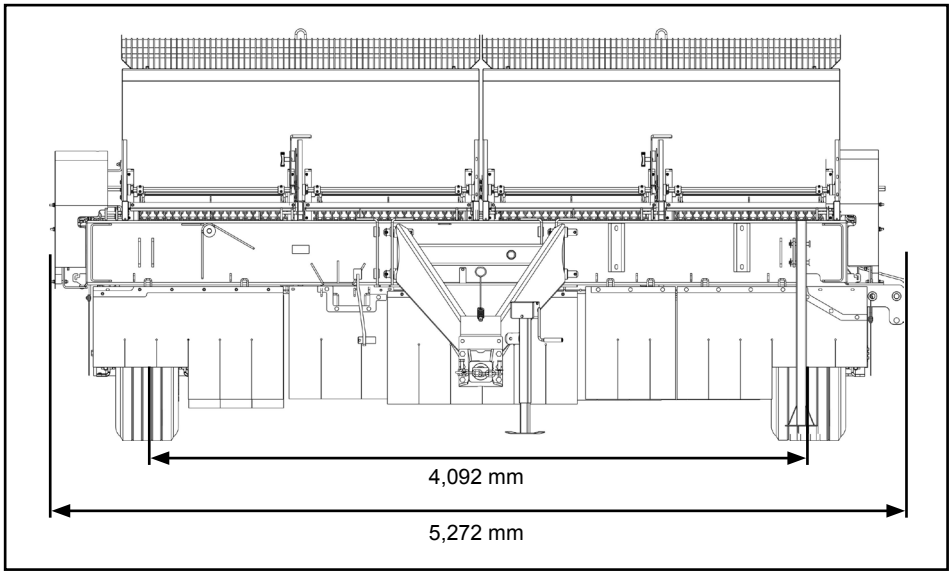

Figure 4

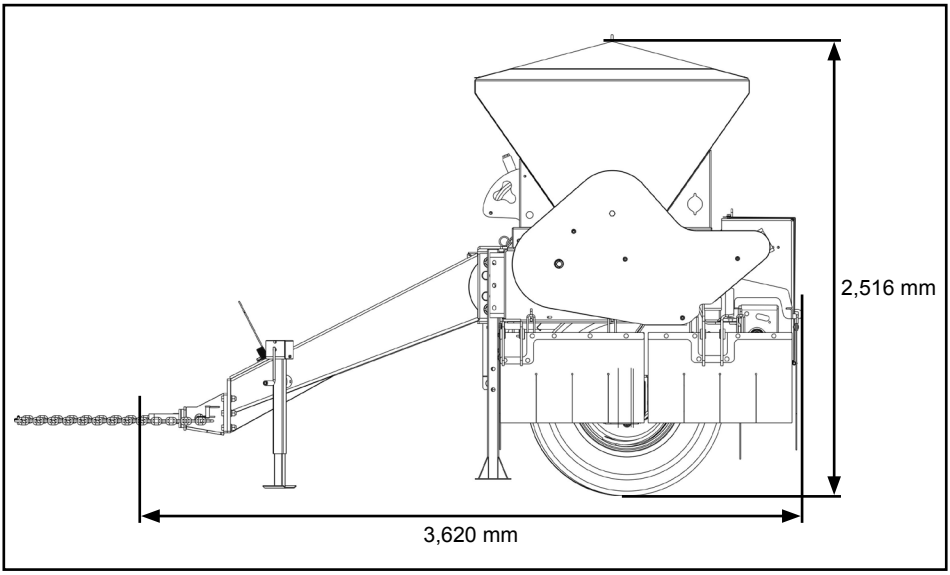

Figure 5

5 - SAFETY PROCEDURES

Figure 6

The following items will describe the importance of operator safety, also clarifying common risk situations during normal use and implement maintenance, suggesting possible actions during these situations.

Precautions are necessary in light of the implement being used and working conditions found in the field, or in maintenance areas. The manufacturer has no direct control regarding these precautions, thus it becomes the responsibility of the owner to enforce these safety procedures while working with the implement.

This implement follows design and work related SAFETY POLICIES FOR MACHINERY EQUIPMENT CONSTRUCTION per NR-12.

Changing the original design of the implement is not allowed, since any alterations could affect the operation of the implement, its safety and could reduce its lifespan.

Should you not fully understand any part of this manual and need the assistance of a technician, please contact your local Stara dealership.

Carefully read all safety related messages and warnings in your manual (Figure 6).

IMPORTANT!
Maintain this instruction manual in good condition and do not forget to consult it on a regular basis.

5.1 - General safety procedures

- When inspecting and refueling or refilling other materials, all should be done with the equipment turned off and parked, using all safe means of accessibility.
- It is forbidden to carry passengers on self-propelled machines and implements.
- When servicing or inspecting the machine in high risk areas, these should only be done by trained or skilled workers, when dealing with security issues.

5.2 - Know all safety information


Figure 7

This symbol is used as a warning sign (danger, warning and caution). When you see this sign on your implement, be aware of possible hazard (Figure 7).

- Accidents can cripple you, even cause death.
- Accidents can be prevented.

5.3 - Preventing unexpected machine start-up

- Protect yourself against possible injuries and even death, due to an unexpected machine start-up.
- Do not start the tractor if the implement is not properly hitched (Figure 8).

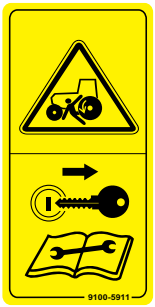

Figure 8

5.4 - Precautions to work with safety

When performing certain procedures with the machine, use the required safety equipment as listed below (Figure 10).

- Waterproof gloves;
- Waterproof long sleeve overalls;
- Safety glasses;
- Hard hat;
- Water proof steel toe safety shoes;
- Hearing protection;
- Safety breathing mask with appropriate filter.

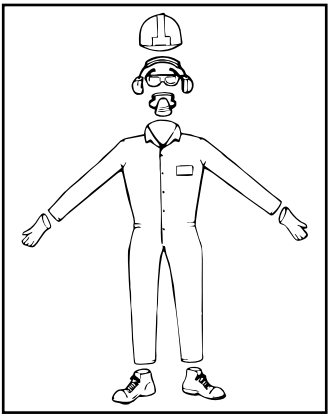

Figure 9

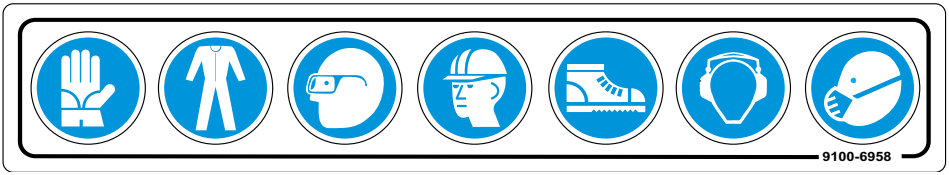

Figure 10

5.5 - Decal care

- Do not remove or disfigure safety or job instruction decals.
- Maintain safety decals in good condition.
- Replace any damaged or missing decals.
- Replacement safety decals can be found at your local Stara dealership.

5.6 - Intended use

- This implement was specifically designed for soil stabilizers and seeds.
- This implement should be driven and operated by a trained operator.

5.7 - Improper usage

- To avoid the risk of injuries or death, do not transport passengers or objects on the catwalk or on any part of the implement.
- Do not use the implement's tank or output system with other products than those designed for this purpose.
- Hitching-up, hooking-up or pushing other implements or accessories is prohibited.
- The implement should be used only by an experienced operator who knows all the commands and operational technics.
- Never transport loads above 3 tons when using the implement's transport system.
- Never drive in reverse with the clutching systems engaged.

WARNING!
The improper use of the implement, specially on irregular terrain or hilly terrain could cause overturning of the machine. Be extremely cautious during rain, snow, icing or any slippery terrain. If necessary, get off the machine and check the consistency of the soil.

WARNING!
Never leave the machine while it is in motion, even if it is overturning, or suffer the possibility of being crushed.

5.8 - Operating and transporting the implement with safety

- Learn how to properly operate the implement.
- Do not allow untrained persons to operate the implement.
- Periodically inspect all safety equipment on the implement before using it.
- Before operating the machine, check to see if there are any persons or obstructions near it (Figure 11).
- Maintain the area of movement free while the implement is in operation (Figure 12).
- Stay away from moving parts like, springs, drive-shafts, gears and chains (Figure 13 and Figure 14).

Figure 11

Figure 12

Figure 13

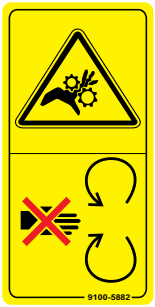

Figure 14

Figure 15

- Never enter the solution tank while in use. Entry access allowed only for maintenance.
- When using the implement down-hill, use the same gear as required while going up-hill (engine brake).
- For greater safety and implement longevity, avoid loads greater than the nominal specified capacity of each implement.
- Use a tractor with the proper power and counterweights, being compatible to the load and terrain topography, in that the tractor can safely control the implement. Note the minimum power requirements of each specific implement model.
- No hitchhikers allowed.
- Verify that the implement is in proper working conditions. In case of any irregularities which could interfere with the operation of the implement, perform the proper required maintenances before operating or transporting it.
- While driving, drive at speeds compatible with the terrain and never above 16 km/h, in this manner you will be protecting the implement by reducing the need for maintenance, and thus increasing its life span.
- Reduce speed while on wet or frozen ground, and on gravel covered terrain.
- Do not operate the implement while drunk or under the influence of tranquilizers or stimulants.
- Do not approach the implement while it is in operation (Figure 16).
- Reduce your speed when on curves.
- When using the jack and support legs, use caution due to possible injury hazards (Figure 17).
- Completely inspect the job area before any operations. Check for any obstacles near the implement, like trees, walls and high power lines, which are hazards which could in the end cause severe or fatal injuries (Figure 18).

Figure 16

Figure 17

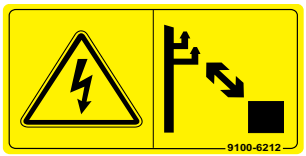

Figure 18

5.9 - Avoid fluids under high pressure

Figure 19

Fluid leaks under high pressure can penetrate the skin and cause severe injuries.

Avoid such hazards by relieving the pressure prior to disconnecting the hydraulic lines or other lines. Tighten all connections prior to pressuring-up the system.

In case of an accident, seek immediate medical assistance. Any fluids which penetrate the skin will need to be surgically removed immediately, so as not to allow gangrene to set-in.

Only qualified technicians on these types of systems can perform repairs, so consult your local Stara dealership.

5.10 - Cares while on hilly terrain

- Avoid holes, ditches and obstacles that can cause the machine to overturn, especially on hills.
- Avoid sharp turns on slopes or hills.
- Never work the implement near ditches and rivers which can bring a high risk of rollovers.

5.11 - Safety measures while transporting the implement

5.11.1 - Transporting on public roadways or highway

- Driving with the implement on public roadways or highways is prohibited.
- Know and respect all transit laws.
- Operate with safety when transporting the implement.
- Do not obstruct the traffic.

5.11.2 - Transporting the implement on trucks or flatbeds

- The implement will be partially disassembled.
- Properly position the implement so that none of its parts stick outside the flatbed area.
- Use chains to tie-down the implement to the flatbed by its tires with blocks, applying the implement's own brakes.
- The implement shall be secured to the bed of the truck with hold-down straps secured to the chassis of the implement.
- Apply the parking brake.
- Be aware of the implement's height limitations. Be careful while traveling near trees, high power lines and overpasses.

5.11.3 - Lights and hazard indicators

When transporting implement on public highways, use extreme caution and safety, follow all local transit laws.

- Frequently check rear view mirrors.
- Always use your turn-signals to indicate your turning direction.
- The safety beacon should be located on top of the cabin and turned-on.
- Use driving lights, warning signals and turn-signals at all times when driving.
- Respect all traffic signs.
- Always maintain warning signals, headlights and reflectors clean, so that they may always be visible. Also, check that headlights, turn-signals and warning signals are all working properly, should they not be functioning properly, call a repair technician to fix them.
- With all these safety features, plus having skilled and capable operators, will increase the safety of all personnel in surrounding area.

5.12 - Avoid heating parts near fluid lines

The heat may cause the material to become brittle and to rupture, releasing pressurized fluid. This may cause severe burns or injuries.

Figure 20

5.13 - Work in well ventilated areas

Never work the machine in closed areas. Work should be done in open and ventilated areas, due to exhaust fumes, chemical products and fertilizers, which if inhaled, can cause asphyxiation.

Figure 21

5.14 - Safety procedures when inflating tires

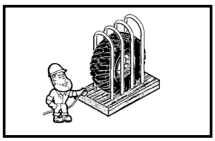

Figure 22

- Never try to refill a tire which is completely flat. If the tire has lost complete pressure, contact the nearest tire specialist.
- Always try to use a protective cage or safety guard when trying to fill a tire.
- In case of a punctured tire, deflate it to remove the object responsible for the puncture. The work to dismount and remount the tire should be done solely by a qualified professional.
- Any changes to the rim balancing can cause the tire to blow-up. For that reason, dismount the tire before making any repairs to the rim.

When inflating a tire, follow this information:

- Use an appropriate air hose, long enough to reach work area, having an air gun with a dual valve and an incremental metering gauge with which to measure and see the pressure reading.
- Place yourself behind the specified safety line, along with any other personnel before beginning to inflate the tire.
- Never inflate the tire to pressures higher then specified.

5.15 - Emergency procedures

- Be ready for any fire conditions.
- In case of a fire, or any other hazardous situation detrimental to the operator, he should seek shelter in a secure place as quickly as possible.
- Keep all emergency phone numbers like doctors, ambulance services, hospitals and fire department near your phone.

5.16 - Safety measures during implement maintenance

Figure 23

- Before using the implement or performing any maintenance services (Figure 23), consult the instructions in the manual on sections 6 on page 23 and 8 on page 31.
- In order for someone work on your implement and equipment, the operator should be capable, properly trained and must have read the instructions contained in this manual.
- It is recommended that all maintenance services be performed by trained and capable professionals, restricting any accessibility to others, and by disconnecting any driven systems.
- Always maintain the implement in good working condition, performing all required maintenances, as defined by the type and frequency of the machine operation, and also the types of products involved.
- Beware of any signs dealing with ware and tare, odd noises and places where there is a lack of lubrication. In case of a break-down or component failure, seek your dealership in order to replace the part with an original one.
- It is recommended that all maintenance services be performed by trained and capable professionals, and by disconnecting any implement driven devices.
- While performing any maintenance on the implement, immediately clean-up any oil spills.
- Do not smoke, nor install any electrical equipment near flammable products, be it on the machine or in storage areas.
- Failure to perform proper maintenance and or the improper operation of the implement by untrained personnel, can cause serious accidents and injuries, besides damaging the implement.
- Maintain the work area clean and dry.
- Before starting any maintenance and adjustment procedures, turn-off all power sources (electric, hydraulic), the engine and operate controls to relieve any pressure in the hydraulic system.
- When welding on any part of the implement, remove and isolate the battery cables, thus avoiding damages to the battery or other safety hazards.
- In order to increase the life expectancy of the implement, wash it after use.

5.17 - Protecting the environment


Figure 24

It is illegal to pollute channels, rivers or the soil. Improper waste disposal is a threat to the environment and the ecology.

- Use containers to dispose used oils.
- Use leak and spill proof containers, when draining used fluids.

- Do not dump waste on the soil, sewer systems and waterways.

In order to know the proper manner to recycle or to dispose of waste, which are the correct methods to discard oils, filters, tires and electronic equipment, seek your local waste recycling center or your local Stara dealership.

6 - MAINTENANCE

In order to make proper use of all the available resources of this precise and rugged implement, certain cares are essential, as highlighted in the following items.

6.1 - Paint care and cleaning

The Bruttus 6000 spreader does not demand great maintenance care, but, there are certain items of extreme importance, which need to be addressed so that its longevity will be assured.

After use, wash well using water spray jets (be careful to not use chemical products, since they can damage the paint job on the implement), eliminating fertilizer residue or other products. This should be done immediately after using the implement for the day.

When necessary, touch-up the paint job, so as to avoid the rusting of metallic component surfaces.

6.2 - Tire pressure

The Bruttus 6000 spreader uses tire size 385/65” x 22.5. When opting to install used tractor or truck tires (second-hand use), these should still be in good conditions, or be it, being able to use air pressure to safely support the recommended loads. The tires leave the factory with an air pressure of 120 psi.

6.3 - Retightening and lubrication

When starting the use of the spreader, perform a general hardware retightening, paying special attention to the wheel assemblies and the hitch. Repeat this procedure after the first 2 job hours and then periodically during its use.

Lubricate daily all points indicated with a decal. On bearing, use the specified blue grease.

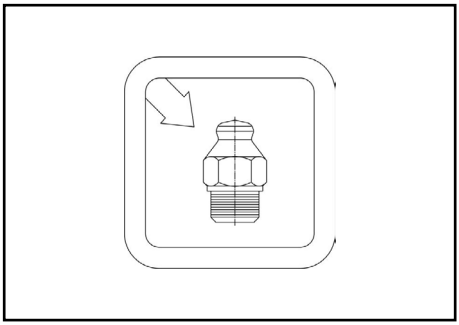

Figure 25

6.4 - Chain drive guards

In order to access the inside of the chain guards to change gears or for maintenance, the tractor and all mechanical and hydraulic drive systems must be turned-off.

Next, remove all chain guard hold-down screws, then remove the guards covers. Change the required gears and reinstall the guards.

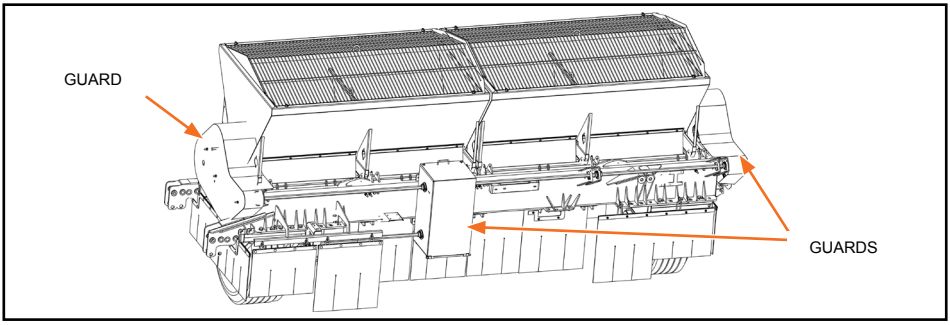

Figure 26

7 - ASSEMBLIES

The Bruttus 6000 spreader leaves the factory with some assemblies already assembled, but to facilitate its shipment, the larger assemblies are assembled at the dealership or at its final destination.

7.1 - Mounting the hubs, tires and rims to the axle

The rear hubs, their respective axles and flanged bearings are mounted on the fork at the factory. At the final destination to mount the wheel assembly to the hubs we must first remove them from the fork. To do so, remove the fork, the flanged bearing and mounting hardware on one side only, then reassemble onto the forks.

NOTE!
Tighten all wheel screws before using the spreader, and retighten after the first work hour.

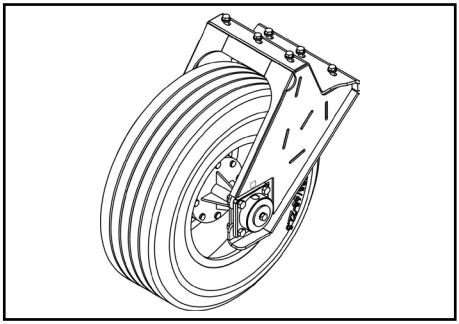

Figure 27

7.2 - Mounting the wheel forks, the hitch and the wheel axles to the chassis

Assemble the wheel forks to the chassis, match the fork holes with the chassis holes (Figure 28). Mount them using nuts and bolts. be careful to tighten them correctly, and retighten as needed.

To mount the hitch onto the Bruttus 6000 chassis, align the hitch mounting holes to the chassis. Install the pins and lock them using locking pins on the ends.

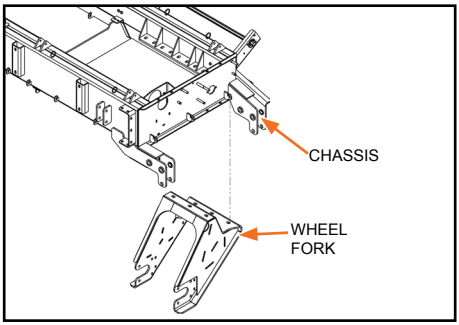

Figure 28

The hitch assembly is a point used for swiveling, which facilitates transporting the implement, when using the wheel drive-train in the transport mode.

7.3 - Preparing the drive-train for transport

The optional drive-train for transport, is used to move an empty implement from one place to another, during long distances and/or if the implement is too wide, making it difficult to transport on roadways, gateways and narrow bridges.

NOTE!
The optional drive-train, was designed specifically to transport an empty implement, otherwise, the implement's structure could be damaged, along with the drive-train.

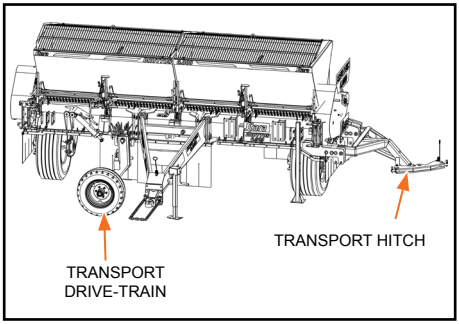

Figure 29

7.4 - Mounting the deflectors

The deflectors serve to ensure greater uniformity of the product to be applied. They are mounted on the internal front side of the chassis, below the conveyor belts (Figure 30).

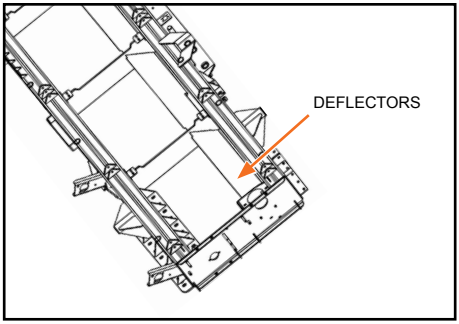

Figure 30

7.5 - Mounting the product hoppers

The Bruttus 6000 has two hoppers which are mounted on chassis, above the conveyor belts by four bolts. The hoppers can be tilted back, thus allowing for the access to the conveyor belts.

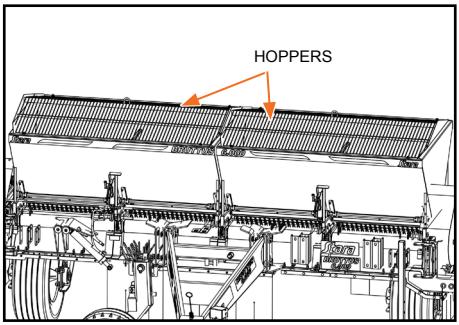

Figure 31

7.6 - Mounting the conveyor belts

The rubber track belts (Figure 32), are used to spread dry or moist soil stabilizers, be they granular or powdered. They are positioned cross-wise to the driving direction of the implement, being driven by the rear wheel transmission.

NOTE!
When adjusting the belt tensions, make sure that the scale numbers are the same on both sides (Figure 33).

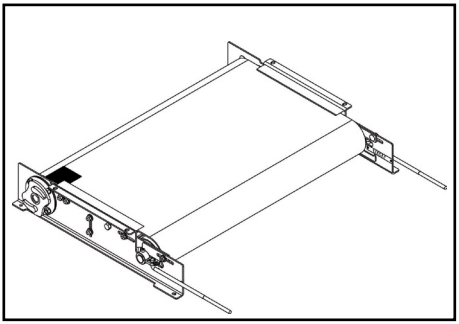

Figure 32

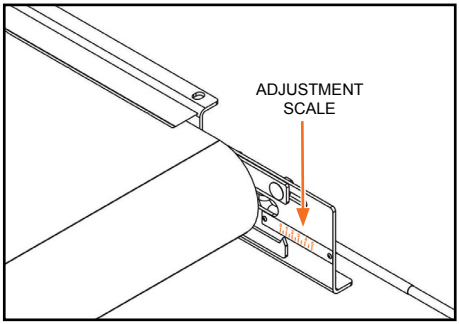

Figure 33

7.7 - Output rate reducer assembly

The output rate reducer assembly kit was designed to work at lower dosages (less then 300 kg/ha) of seeds and granular fertilizers.

They are mounted above the conveyor belts, inside the hoppers. The product falls into spaced slots above the conveyor belt, thus reducing the product application output rate.

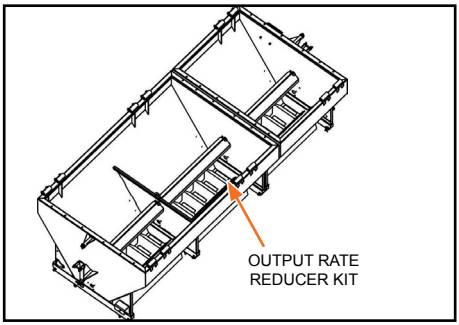

Figure 34

In order to install the output rate reducer kit, disassemble the agitator shaft. Make sure to maintain a gap between the reducers and the conveyor belt (minimum of 5 mm). If necessary use spacer washers.

NOTE!
When using the output rate reducers, the slide-gates are totally opened.

7.8 - Load reducing caps installation

The load cap's function is to reduce the load on the conveyor belts and agitators. Thus, the caps reduce the load demands put on the transmission system, all the while providing greater uniformity in feeding the conveyor belts.

The caps are mounted inside of the hoppers, being supported by side tabs and are locked-down by two "R" clips on each cap (Figure 35).

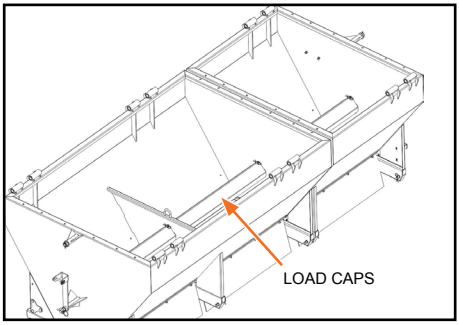

Figure 35

7.9 - Agitator assembly and operation

The agitators minimizes product compaction thus ensuring a uniform distribution to the conveyor belts.

They are mounted under the load reducer caps and are driven by side transmission.

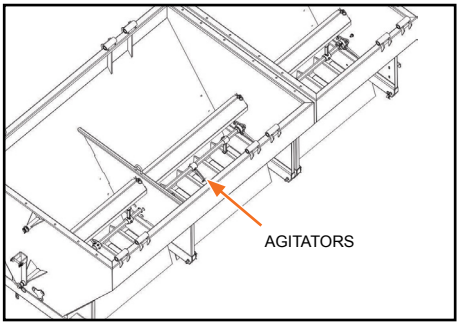

Figure 36

7.10 - Protective grating assembly and operation

These are installed over the hoppers. The protective gratings serve as a filter for the product being distributed, in that it prevents stones, dirt clots or other products from getting inside the hoppers, thus avoiding damages to the components of the spreader system.

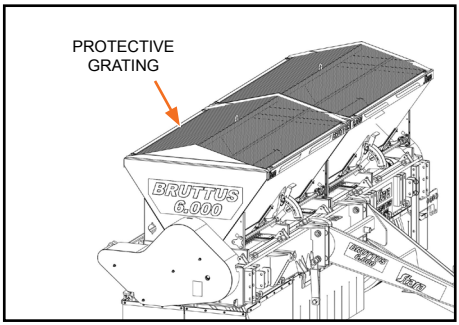

Figure 37

7.11 - Slide-gate and adjustment lever assembly

The flow rate adjust slide-gates dove-tail into the hopper guide plates and are mounted on the slide-gate joint support.

The slide-gate calibration is done at the factory. If it is necessary to re-calibrate, follow these steps:

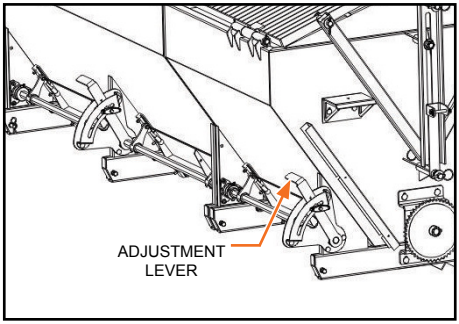

Figure 38

- Place a plate or any other part that is 2 mm thick, between the conveyor belt and the slide-gate;
- Place the lever in the 0 (zero) position on the scale;
- Tighten the wing-nut;
- Adjust the threaded bar to match the slide-gate holes and tighten the nuts.

Do the same to all slide-gates, in order to keep all of them evenly adjusted.

7.12 - Transmission assembly installation

The agitator and conveyor track belts are driven by the left wheel of the implement, through sprocket gears which drive the side transmission box (Figure 39).

The transmission on/off system (clutch assembly) when driven by the hydraulic cylinder, will keep the axle from turning, and consequently, that will stop the product distribution, thus avoiding waste.

Starting with the clutch from where the gear set is driven, and it will change the speed of the conveyor track belts. Also it will drive the conveyor belts and the agitators (see Figure 39 and Figure 40).

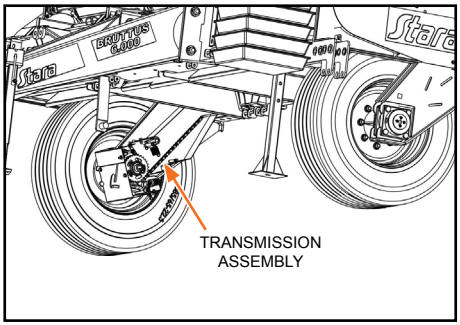

Figure 39

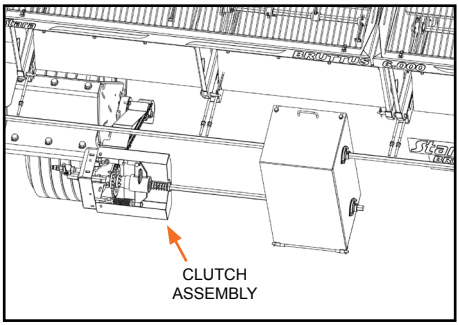

Figure 40

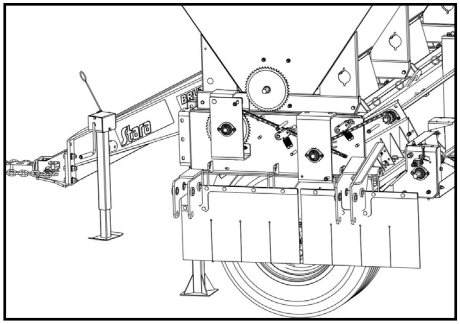

Figure 41

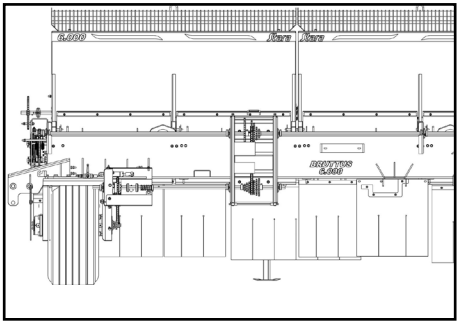

Figure 42

7.13 - Clutch drive cylinder assembly

The drive cylinder is mounted on the clutch and on the rear wheel fork Figure 43. Note that the hose must pass through the hopper base tube to each the tractor's hydraulic controller.

The clutch cylinder allows for an opening of 15 mm, sufficient distance to disconnect the clutch for long distances, without driving the implement's transmission system. The spring must have enough tension in order to aid the cylinder when clutching and declutching.

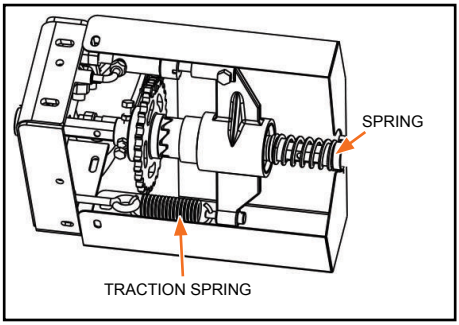

Figure 43

IMPORTANT!
Firmly tighten the bushing screw to prevent the clutch from shifting and thus cause damages to the sprocket teeth.

7.14 - Wind-breaker curtain installation

The wind-breaker curtains, should be installed when working with powdered products, and on windy days. The curtain panels must be mounted one by one, around and below the chassis (Figure 44).

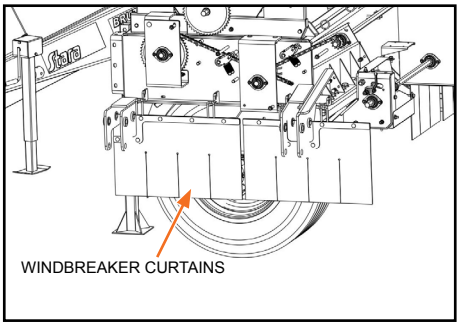

Figure 44

7.15 - Hydraulic hoses installation

After the hoses have been mounted for the job, connect the quick-disconnects of the hoses to the tractor hydraulic controller.

The hose with a control valve should be mounted on the front of the implement, going through the lower tube of the hopper, then connect it to the hydraulic cylinder. Thus, the control valve is near the controller and close to the operator.

7.16 - Variable rate application control system Installation (optional)

Implements which have a variable rate application system, are driven by a hydraulic motor, thus the mechanical transmission system is not used (Figure 45).

In order to install and calibrate the variable rate system, you will need to call for specialized technical support.

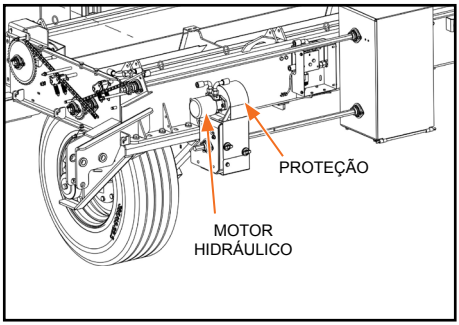

Figure 45

7.17 - Row marker installation (optional)

Mount the row marker assembly to the chassis (Figure 46).

Mount the row marker assembly to the chassis (Figure 47). After the job, you can fold the row marker and secure it to the frame instead of removing it from the implement (Figure 25), thus providing for quick job accessibility.

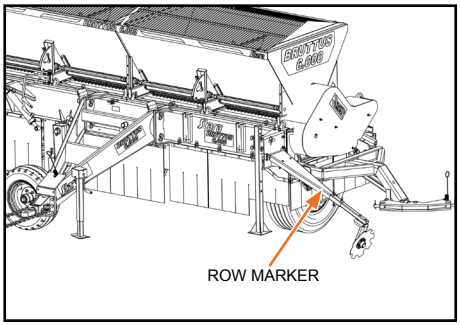

Figure 46

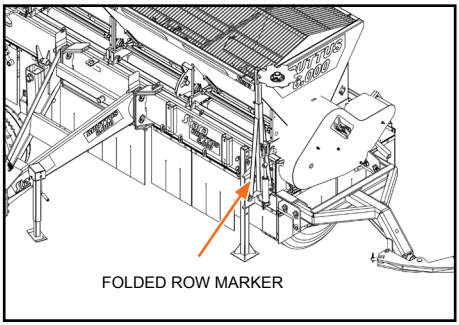

Figure 47

8 - OPERATION AND ADJUSTMENTS

8.1 - Stainless Steel Conveyor Belt Adjustments

Pay special attention to the wear of the conveyor belts. When necessary, re-tighten, making sure to maintain a working gap, as per Figure 48.

This adjustment is made by turning the nuts on the rods, which are located on the rear of the implement.

NOTE!
The gap of the track is defined by an arrow of ± 20 mm, which forms as an arch (a belly on the lower part of the belt) relative to the horizon.

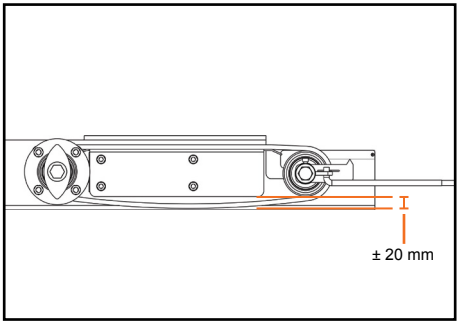

Figure 48

8.2 - Transmission chain-drive adjustment

When changing speeds or performing maintenance, be sure to properly align the gears and to adjust the tensions leaving a light slackness, the chains should not be totally strained.

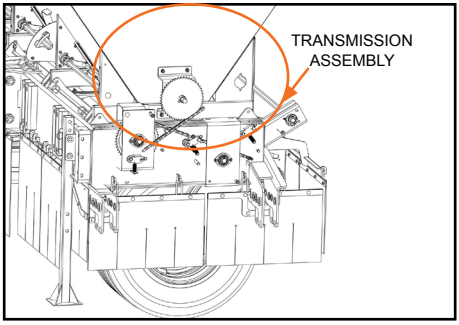

Figure 49

8.3 - Procedures for when maneuvering and handling the implement.

Whenever you need to move the Bruttus 6000 spreader from the barn to the field, or from one field to another field, close the valve at the beginning of hydraulic circuit, so that the oil will not leak into the cylinder, and due to the spring action, it could trigger the clutch during the maneuvering.

During maneuvering, drive at speeds compatible with the terrain and do not exceed 15 km/h, thus reducing the implement's maintenance requirements and increasing its useful life.

CAUTION!
Never drive the implement in reverse with its clutch engaged, it may damage the transmission system of the implement.

The Bruttus 6000 was designed for loads of up to 6 tons. Please, do not exceed this load capacity, in order to ensure your safety and implement's useful life.

8.3.1 - Transport x load

The product to be applied, should be near the application area, so that the implement can be easily and safely loaded.

- **Without the transport drive-train (optional):** the implement cannot run for long distances loaded, and in order to avoid product compaction, which will affect the even distribution of the conveyor belts, causing damages to the transmission system.
- **With the transport drive-train (optional):** this was exclusively designed for transporting an empty implement, otherwise there may occur damages to implement and the actual drive-train.

8.4 - Slide-gate adjustments

In order to adjust the slide-gates, first choose the product type to be applied and the application rate in kg/ha. The position of the levers on the graduated scale is shown on the product application tables, see Table 3 to Table 23.

After selecting the product, the application rate in kg/ha and the corresponding slide-gate adjustment, take a product sampling using the sample trays, place then on the line and pass over them with the implement, while controlling the application rates (Figure 50).

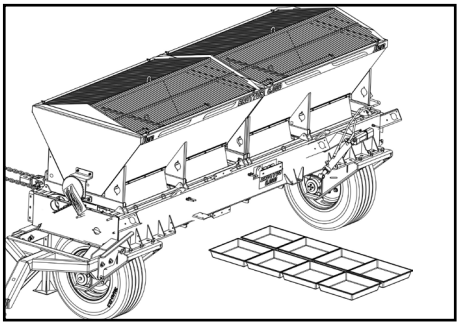

Figure 50

NOTE!
The amount of product collected should be 10% higher than the set dose, to compensate for the spaces between the track-belts.

When using the output application rate reducers, it is not necessary to adjust the gate opening. The

gates must be totally opened, and the belt speeds will be determined by the sprockets in the gearbox.

The reducers make it possible to have an uniform and constant product distribution, regardless of the track-belt gear changes, see section 7.7 on page 27.

8.5 - Procedure for changing gears in the gear box.

In order to change gear combinations, remove the screw which holds the “christmas tree” sprockets and the wing-nut which locks-in the set chain tension.

With the christmas tree loose, move it along the axle in order to place it on the desired combination. Be sure to maintain the chain evenly aligned with the gears, tightening the chain tension, next reinstall the butterfly wing-nut (Figure 51).

The higher the product application rate is, the lower are the conveyor belt speeds. At lower belt speeds with application rates below 400 kg/ha will result in a longitudinal non-uniformity of the product distribution.

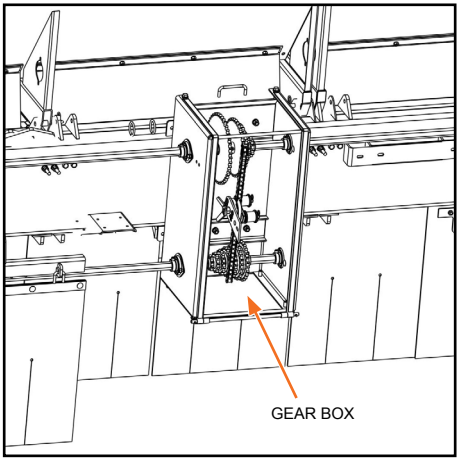

Figure 51

NOTE!
When it is necessary to apply very low amounts of granulated product, you must use the “output rate reducer” accessory, on stainless-steel conveyor belts.

8.6 - Implement leveling

In order for the Bruttus 6000 to be horizontally level, adjust its draw-bar hitch with relation to the tractor’s hitch. To adjust the hitch position, use the draw bar adjustment holes.

8.7 - Tread gauge adjustment procedure

In order to adjust the row spacing in accordance with different commodities, such as sugar cane, it is necessary to change the implement’s wheel span. The Bruttus 6000 allows for 5 specific adjustment positions (Figure 52).

On specific spacing used for sugar cane, the spreader has an adjustment option which allows working with spacings 1100 to 1500 mm.

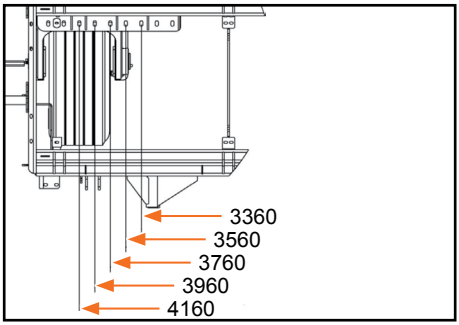

Figure 52

NOTE!
Whenever possible, choose the widest tread gauge to ensure greater work stability.

The implement is factory set to the maximum tread gauge (4160 mm).

8.8 - Procedure when using the row marker (optional)

Implements equipped with row markers need to have a tractor with dual controller, where one controller drives the simple clutch cylinder, the other controller drives the row marker's double action cylinders.

In case the implement is equipped with the transport package, it is necessary to deactivate one of the above mentioned functions in order to free-up one of the controller sections, or the tractor must be equipped with a triple controller.

8.9 - Hitching-up to the tractor

The Bruttus 6000 is hitched to the tractor by the hitch pin.

ATTENTION!
After hitching the spreader to the tractor hitch bar, remember to install the hitch locking pin (Figure 53).

ATTENTION!
Removing the tie-down bolt or not using the safety chain, will implicate in the forfeiture of the implement's warranty (Figure 54).

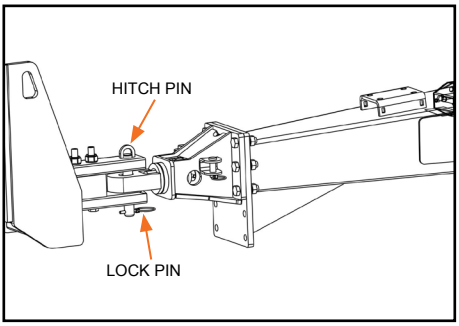

Figure 53

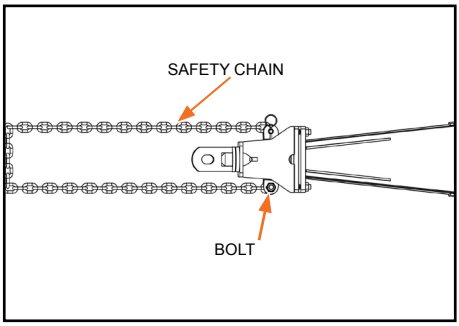

Figure 54

To make these connections, clean well the hose terminals (male) using a clean cloth, push the socket (female) terminal quick-connect ring against the support plate with one hand, and with the other insert the male terminal and release the quick-connect ring (Figure 42).

If you are not able to mate the hose terminal, remove the line pressure by pressing the terminal needle valve (male) against clean surface. Afterwards, redo the previous step again (Figure 43).

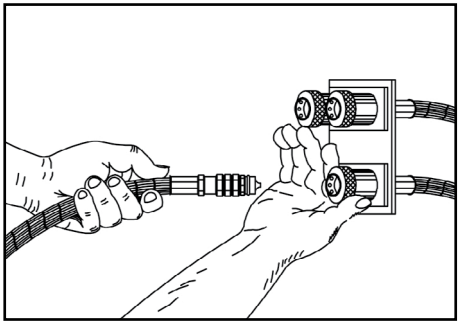

Figure 55

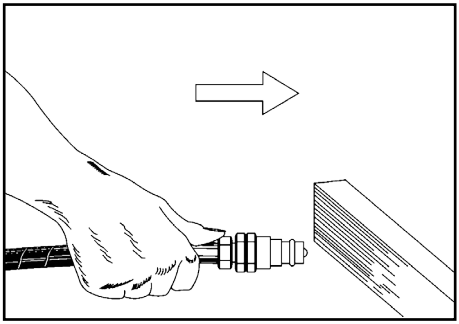

Figure 56

9 - TROUBLESHOOTING

PROBLEMS	CAUSES	SOLUTIONS
Fixed hose couplings leak.	Improper tightening.	Carefully tighten.
	Lacks thread sealant.	Apply thread sealant and carefully tighten.
Quick-connect hose couplings leak.	Improper tightening.	Carefully tighten.
	Lacks thread sealant.	Apply thread sealant and carefully tighten.
	Damaged repairs.	Replace repairs.
Hydraulic motor oil leaks.	Ring seal failure.	Replace ring.
	Oil temperature above 80º C.	Stop the job until the temperature returns to normal.
Hydraulic motor does not work.	Pressure under 180 kgf/cm².	Adjust the pressure of the hydraulic control relief valve to 180 kgf/cm².
	Hydraulic oil level too low.	Top-off the hydraulic oil level.
	Oil flow-rate too low (under 80 l/min).	Service the pump (pump worn).
	Dirty oil.	Clean or replace the oil filter. If the oil is contaminated,change it out.
	Plugs with uneven pressures.	Adjust and if necessary, replace them.
	Inverted lines.	Operate the controls according to the indicated rotation of the arrow (left).
Quick-connect coupling does not mate.	Mismatched couplings.	Change them for male and female of the same type.

Table 2

10 - APPLICATION RATE ADJUSTMENT TABLE FOR RUBBER CONVEYOR BELTS

IMPORTANT!
The Bruttus 6000 spreader does not allow for an output rate of limestone lower than 500 kg/ha and speeds lower than 15 km/h, due to the fact that the slide-gate cannot be adjusted to a position lower than 5.

10.1 - Fertilizer - specific weight - 1.17 kg/m³

Sprocket gear combination	kg/m²	kg/ha
37 x 9	0.0345	345
37 x 12	0.0471	471
37 x 15	0.0609	609
37 x 18	0.0771	771
37 x 20	0.0846	846
37 x 23	0.0995	995
37 x 25	0.1088	1088
30 x 9	0.0441	441
30 x 12	0.0590	590
30 x 15	0.0734	734
30 x 18	0.0860	860
30 x 20	0.1041	1041
30 x 23	0.1157	1157
30 x 25	0.1297	1297

Table 3

10.2 - Fertilizer NPK (w/reducer kit) - Specific weight 1.17 kg/m³

Sprocket gear combination	kg/m²	kg/ha
37 x 9	0.0046	46,5
37 x 12	0.0057	57
37 x 15	0.0080	80
37 x 18	0.0096	96
37 x 20	0.0107	107
37 x 23	0.0127	127
37 x 25	0.0137	137
30 x 9	0.0056	56
30 x 12	0.0079	79
30 x 15	0.0102	102
30 x 18	0.0113	113
30 x 20	0.0132	132
30 x 23	0.0150	150
30 x 25	0.0172	172
18 x 12	0.0125	125
18 x 15	0.0176	176
18 x 18	0.0199	199
18 x 20	0.0227	227
18 x 23	0.0255	255
18 x 25	0.0288	288
12 x 18	0.0308	308
12 x 20	0.0353	353
12 x 23	0.0399	399
12 x 25	0.0455	455

Table 4

10.3 - Fertilizer NPK (w/reducer kit) - Specific weight 1.17 kg/m³

Sprocket gear combination	kg/m²	kg/ha
37 x 9	0.003	93
37 x 12	0.0132	132
37 x 15	0.0164	164
37 x 18	1.0199	199
37 x 20	0.0215	215
37 x 23	0.0260	260
37 x 25	0.0279	279
30 x 9	0.0116	116
30 x 12	0.0162	162
30 x 15	0.0209	209
30 x 18	0.0255	255
30 x 20	00262	262
30 x 23	0.0316	316
30 x 25	0.0339	339
18 x 12	0.0271	271
18 x 15	0.0339	339
18 x 18	0.0404	404
18 x 20	0.0469	469
18 x 23	0.0525	525
18 x 25	0.0569	569
12 x 18	0.0604	604
12 x 20	0.0720	720
12 x 23	0.0809	809
12 x 25	0.0860	860

Table 5

10.4 - Dry limestone - Specific weight 1.82 kg/m³

Sprocket gear combination - 9-37.

Sprocket gear combination	kg/m²	kg/ha
0	0.0634	634
1	0.0686	686
2	0.0907	907
3	0.0942	942.8
4	0.1143	1143
5	0.1391	1391
6	0.1505	1505.5
7	0.1747	1747.46
8	0.2094	2094.32
9	0.2476	2476.5
10	0.2726	2726

Table 6

10.5 - Dry limestone - Specific weight 1.82 kg/m³

Sprocket gear combination - 12-37.

Sprocket gear combination	kg/m²	kg/ha
0	0.0888	888
1	0.0940	940
2	0.1092	1092
3	0.1334	1334
4	0.1493	1493
5	0.1709	1709
6	0.2138	2138
7	0.2432	2432
8	0.3066	3066
9	0.3130	3130
10	0.3445	3445

Table 7

10.6 - Dry limestone - Specific weight 1.82 kg/m³

Sprocket gear combination - 15-37.

Sprocket gear combination	kg/m²	kg/ha
0	0.1142	1142
1	0.1209	1209
2	0.1370	1370
3	0.1661	1661
4	0.1996	1996
5	0.2299	2299
6	0.2650	2650
7	0.2977	2977
8	0.3388	3388
9	0.3876	3876
10	0.4657	4657

Table 8

10.7 - Dry limestone - Specific weight 1.82 kg/m³

Sprocket gear combination -18-37.

Sprocket gear combination	kg/m²	kg/ha
0	0.1336	1336
1	0.1383	1383
2	0.1643	1643
3	0.1887	1887
4	0.2246	2246
5	0.2535	2535
6	0.2844	2844
7	0.3825	3825
8	0.3925	3925
9	04336	4336
10	0.4707	4707

Table 9

10.8 - Dry limestone - Specific weight 1.82 kg/m³

Sprocket gear combination - 20-37.

Sprocket gear combination	kg/m²	kg/ha
0	0.1546	1546
1	0.1574	1574
2	0.1695	1695
3	0.2205	2205
4	0.2486	2486
5	0.2874	2874
6	0.3482	3482
7	0.3955	3955
8	0.4710	4710
9	0.5372	5372
10	0.5716	5716

Table 10

10.9 - Dry limestone - Specific weight 1.82 kg/m³

Sprocket gear combination - 23 - 37.

Sprocket gear combination	kg/m²	kg/ha
0	0.1851	1851
1	0.1967	1967
2	0.2124	2124
3	0.2509	2509
4	0.2931	2931
5	0.3431	3431
6	0.4063	4063
7	0.4613	4613
8	0.5471	5471
9	0.5702	5702
10	0,6502	6502

Table 11

10.10 - Dry limestone - Specific weight 1.82 kg/m³

Sprocket gear combination - 25-37.

Sprocket gear combination	kg/m²	kg/ha
0	0.1904	1904
1	0.2094	2094
2	0.2514	2514
3	0.2961	2961
4	0.3341	3341
5	0.3807	3817
6	0.4489	4489
7	0.5545	5545
8	0.5602	5602
9	0.6498	6498
10	0.7016	7016

Table 12

10.11 - Fosmag (w/reducer kit) - Specific weight 1.10 kg/m³

Sprocket gear combination	kg/m²	kg/ha
37 x 9	0.0409	409
37 x 12	0.0497	497
37 x 15	0.0641	641
37 x 18	0.0757	757
37 x 20	0.0827	827
37 x 23	0.0971	971
37 x 25	0.1078	1078
30 x 9	0.0446	446
30 x 12	0.0637	637
30 x 15	0.0809	809
30 x 18	0.0920	920
30 x 20	0.1083	1083
30 x 23	0.1209	1209
30 x 25	0.1325	1325

Table 13

10.12 - Dry limestone - Specific weight 1.82 kg/m³

Sprocket gear combination	kg/m²	kg/ha
37 x 9	0.0051	51
37 x 12	0.0069	69
37 x 15	0.0088	88
37 x 18	0.0111	111
37 x 20	0.0118	118
37 x 23	0.0134	134
37 x 25	0.0146	146
30 x 9	0.0065	65
30 x 12	0.0083	83
30 x 15	0.0116	116
30 x 18	0.0130	130
30 x 20	0.0149	149
30 x 23	0.0169	169
30 x 25	0.0190	190
18 x 12	0.0144	144
18 x 15	0.0190	190
18 x 18	0.0223	223
18 x 20	0.0251	251
18 x 23	0.0292	292
18 x 25	0.0316	316
12 x 18	0.0330	330
12 x 20	0.0395	395
12 x 23	0.0469	469
12 x 25	0.0508	508

Table 14

10.13 - Fosmag (w/reducer kit) - Specific weight 1.10 kg/m³

Sprocket gear combination	kg/m²	kg/ha
37 x 9	0.0102	102
37 x 12	0.0141	141
37 x 15	0.0178	178
37 x 18	0.0213	213
37 x 20	0.0255	255
37 x 23	0.0283	283
37 x 25	0.0302	302
30 x 9	0.132	132
30 x 12	0.0173	173
30 x 15	0.0227	227
30 x 18	0.0255	255
30 x 20	0.0297	297
30 x 23	0.0344	344
30 x 25	0.0381	381
18 x 12	0.0297	297
18 x 15	0.0381	381
18 x 18	0.0447	447
18 x 20	0.0502	502
18 x 23	0.0571	571
18 x 25	0.0627	627
12 x 18	0.0657	657
12 x 20	0.0746	746
12 x 23	0.0850	850
12 x 25	0.0925	925

Table 15

10.14 - Gypsum - Specific weight 0.094 kg/m³

Sprocket gear combination - 9-37.

Sprocket gear combination	kg/m²	kg/ha
0	0.0234	234
1	0.0268	268
2	0.0334	334
3	0.0388	388
4	0.0610	610
5	0.0685	685
6	0.0830	830
7	0.0933	933
8	0.1061	1061
9	0.1222	1222
10	-	-

Table 16

10.15 - Gypsum - Specific weight 0.094 kg/m³

Sprocket gear combination - 12-37.

Sprocket gear combination	kg/m²	kg/ha
0	0.0346	346
1	0.382	382
2	0.0419	419
3	0.0491	491
4	0.0793	793
5	0.0918	918
6	0.1060	1060
7	0.1252	1252
8	0.2444	2444
9	0.1658	1658
10	-	-

Table 17

10.16 - Gypsum - Specific weight 0.094 kg/m³

Sprocket gear combination - 12-37.

Sprocket gear combination	kg/m²	kg/ha
0	0.0520	520
1	0.0631	631
2	0.0646	646
3	0.0799	799
4	0.0852	852
5	0.1140	1140
6	0.1422	1422
7	0.1608	1608
8	0.1701	1701
9	0.1923	1923
10	-	-

Table 18

10.17 - Gypsum - Specific weight 0.094 kg/m³

Sprocket gear combination - 18-37.

Sprocket gear combination	kg/m²	kg/ha
0	0.0620	620
1	0.0634	634
2	0.0712	712
3	0.1009	1009
4	0.1160	1160
5	0.1436	1436
6	0.1772	1772
7	0.1953	1953
8	0.2236	2236
9	0.2671	2671
10	-	-

Table 19

10.18 - Gypsum - Specific weight 0.094 kg/m³

Sprocket gear combination - 20-37.

Sprocket gear combination	kg/m²	kg/ha
0	0.0768	768
1	0.0798	798
2	0.0835	835
3	0.1235	1235
4	0.1397	1397
5	0.1656	1656
6	0.2013	2013
7	0.2315	2315
8	0.2585	2585
9	0.2949	2949
10	-	-

Table 20

10.19 - Gypsum - Specific weight 0.094 kg/m³

Sprocket gear combination - 25-37.

Sprocket gear combination	kg/m²	kg/ha
0	0.0939	939
1	0.0965	965
2	0.1143	1143
3	0.1346	1346
4	0.1546	1546
5	0.1597	1597
6	0.1223	1223
7	0.2640	2640
8	0.3114	3114
9	0.3400	3400
10	-	-

Table 21

10.20 - Gypsum - Specific weight 0.094 kg/m³

Sprocket gear combination - 25-37.

Sprocket gear combination	kg/m²	kg/ha
0	0.1036	1036
1	0.1039	1039
2	0.1088	1088
3	0.1376	1376
4	0.1963	1963
5	0.2106	2106
6	0.2410	2410
7	0.2757	2757
8	0.3088	3088
9	0.3785	3785
10	-	-

Table 22

10.21 - Fosmag (w/reducer kit) - Specific weight 1.10 kg/m³

Sprocket gear combination	kg/m²	kg/ha
37 x 9	0.0032	32.5
37 x 12	0.0041	41.5
37 x 15	0.0060	60
37 x 18	0.0067	67
37 x 20	0.0083	83
37 x 23	0.0097	97
37 x 25	0.0106	106
30 x 9	0.0037	37
30 x 12	0.0055	55
30 x 15	0.0074	74
30 x 18	0.0088	88
30 x 20	0.0102	102
30 x 23	0.0116	116
30 x 25	0.0122	122
18 x 12	0.0106	106
18 x 15	0.0130	130
18 x 18	0.0158	158
18 x 23	0.0204	204
18 x 25	0.0218	218
12 x 18	0.0251	251
12 x 20	0.0279	279
12 x 23	0.0316	316
12 x 25	00358	358

Table 23

WARRANTY CLAIMS

Must be kept on file

The information contained in this warranty claim has been written, in a generalized way, thus covering your new Stara implement. Should there be the need for additional information regarding the use of your implement, we suggest reading your instruction manual.

All the information contained in this warranty claims are based on the last available data at the time of its publication, being subject to changes without any previous warnings.

Please be aware that, any modifications made to your Stara implement could affect your productivity, safety and operation.

With these modifications, you could jeopardize loosing your contractual warranty agreement issued by Stara S/A Indústria de Implementos Agrícolas.

When purchasing your new Stara implement, demand that your authorized dealership chain completely fill-out this warranty claim, along with explanations regarding the warranty issued by Stara S/A Indústria de Implementos Agrícolas.

STARA'S IMPLEMENT WARRANTY

1 - BASIC COVERAGE PERIOD

Stara S/A Indústria de Implementos Agrícolas, through its authorized dealership chain, guarantees its implements under normal usage conditions, against parts manufacturing defects or installation, for a total period as defined in the chart below.

IMPLEMENTS	WARRANTY PERIOD
Self-propelled	12 months or 1,000 hours
Tractors	12 months or 1,000 hours
Technology equipment	12 months
Spreaders	6 months
Headers	6 months
Sprayers - Drawn/Hitched	6 months
Planters and Seeders	6 months
Other products	6 months
Original Stara parts and accessories	6 months

The first 90 (ninety) days refer to a legal warranty as defined by the Brazilian courts and, an additional contractual period issued freely by Stara S/A Indústria de Implementos Agrícolas.

The warranty begins at the date of issue of the implement's sales invoice, having as its end user, the first owner.

- Note

  The warranty time-frame for parts and components replaced during the basic warranty period, expire on the end date of the contractual warranty as issued by Stara S/A The Agricultural Implements Company.

1.1 - Accessories

Some implements can be purchased, through the authorized dealerships with pre-installed accessories.

When dealing with accessories, even though genuine Stara parts, its warranty period has no relationship with the implement's warranty time-frame.

Thus, when purchasing your implement, demand all sales receipts for the accessories which were installed on the implement, which will allow you to partake in the said warranties of these items.

For detailed information regarding warranty coverage of genuine Stara accessories, consult item 7 of this document.

1.2 - Transferable warranty

This warranty is totally transferable to the subsequent owners of the implement, as long as the new owner has possession of the original warranty claims document, where all required periodic maintenance are logged, and the starting date of the warranty.

2 - LIMITED WARRANTY COVERAGE

Tires, inner tubes and injection pumps are only directly guaranteed by their manufactures, of the referred components. Stara, through its authorized dealerships, limits itself to only forwarding the respective guarantees to the manufactures (or their authorized distributors) of said components. Stara does not hold itself responsible for a positive or negative solution to a complaint which is presented by the owner. Substituting complete assemblies like an engine, transmission or axles, will only be done if there is no possibility of a partial repair by a technician.

3 - PARTS NATURAL WEAR AND TARE

Substituting parts and components during their normal usage on the implement and, due to natural wear which is common to all parts and components, is not covered by the warranty, as long as it is not related to a manufacturing defect.

Examples of natural wear and tare parts: electrical items; filters; belts; bearings; quick-disconnects; cutting bars; wear shield plates; slide plates; chains; grain tank canvas cover; wind-shield wipers; brake pads, disc brakes and brake shoes; tires; clutch plate, clutch discs and bearings.

4 - ITEMS AND SERVICES NOT COVERED BY THE WARRANTY

Factors out of the control of Stara S/A The Agricultural Implements Company.

(I) Repairs and adjustments resulting from improper use of the implement (examples: over-speeding the engine, overloading, improper operations), negligence, modifications, alterations, abuses, accidents, improper adjustments and repairs, using non-genuine parts and any other usage contrary to specifications listed on the instruction manual.

(II) Damages to the implement of any sort due to adverse environmental conditions, such as acid rain, reaction to chemical substances, tree sap, salinity, hail, strong winds, lightning, flooding, impact damage by any objects and any other acts of nature.

(III) Failure to perform maintenance on the implement, necessary repairs and adjustments due to improper maintenance (done by a third party or any other non-authorized dealerships), failure to use the implement, the use of fluids (and lubricants) not recommended by Stara S/A The Agricultural Implements Company.

(IV) Repairs and adjustments resulting from the use of fuel with poor quality and/or that has been adulterated.

4.1 - Additional expenditures

The warranty does not cover any expenditures for transporting the implement and loss of profits.

4.2 - Altered hourmeter

Any factors or evidence which proves that an hourmeter has been changed and tampered with, will give just cause for the cancellation and termination of the warranty.

4.3 - Owner is responsible for maintenances

Engine adjustments, lubrication, cleaning, filter replacements, fluids, natural wearing parts, are some of the items used by the implement on their scheduled maintenances. Thus, these are charges incurred by the owner of the implement.

5 - OWNER'S RESPONSIBILITIES

5.1 - Getting warranty service

The owner has the responsibility to deliver his implement for repairs at any Stara authorized dealership, in order to maintain his warranty.

Fundamental conditions when honoring the warranty:

(I) The claim must be directed to a Stara authorized dealership, after it has been established that there is evidence of a nonconformity.

(II) The warranty document for the implement must be presented and, that it be properly filled-out, along with it all maintenance records as required by the scheduled maintenances.

5.2 - Maintenance

It is the owner's responsibility for the proper operation, required operator training of those who will operate the implement, not limiting it to those required by law, like maintenance and care, according to the instructions listed in the instruction manual.

6 - HOW TO OBTAIN TECHNICAL ASSISTANCE

6.1 - Client satisfaction

Stara S/A The Agricultural Implements Company, is constantly looking for ways to improve its implements and to client satisfaction.

All Stara authorized dealerships maintain a full arsenal of tools, equipment and technicians highly trained by Stara S/A The Agricultural Implements Company, so that your implement has the best repairs and services, all with a high standard of quality. Thus, when needed seek your nearest Stara authorized dealership.

6.2 - Required information

In case there is the need to repair your Stara implement, keep on-hand the following information and documents:

(I) A clear description of the nonconformity, including the conditions under which it occurred.

(II) Warranty claim document, instruction manual and all receipts which need to be legible, as proof for oil changes not done by Stara authorized dealerships.

- Important

  The warranty claim document is required to have, a logged registry (stamps) of all check-ups performed, according to the scheduled hours and time-frames.

  All receipts needed as proof of oil changes not done by Stara approved dealerships.

  It is the implement's owner's responsibility to retain all receipts in a legible manner, as proof for an oil substitution which was done by a third party, and that it is recommended by Stara S/A The Agricultural Implements Company, according to guidelines written in the instruction manual.

  The receipts mentioned above will be required in situations where proof of oil changes are necessary. Thus, when selling the implement, do not forget to supply these receipts to the new owner. If you are purchasing the implement, request this documentation from the previous owner.

- Important

  In the event that you need to repair the implement's engine, the above mentioned documents will be required for the warranty claim.

6.3 - Scheduled maintenance program

The scheduled maintenance program for the implement is written in the instruction manual.

In this plan you will find all the required and necessary information for the best operation of your Stara implement.

- Important

  All and any costs with reference to labor costs and parts and components replacement foreseen in the maintenance program will be the responsibility of the implement's owner, except for changes paid for by the manufacturer.

6.4 - Implement's scheduled maintenance plan

All scheduled maintenances listed in the instruction manual, will be done exclusively by a Stara authorized dealership, also it shall be logged-in on the scheduled maintenance pages, which are found at the end of this warranty claim.

The simple changing of oil and filters, as shown on the scheduled maintenance guidelines, does not omit the mandatory requirements for regular scheduled maintenances.

Not complying with the regular scheduled maintenance program can compromise the proper operation of your Stara implement, leading to possible nonconformities, which can be prevented by implementing a regular scheduled maintenance program.

Stara S/A The Agricultural Implements Company reserves the right to make that judgment. Therefore, we recommend that the whole scheduled maintenance program be fulfilled, so that such situations can be avoided.

7 - WARRANTY OF GENUINE STARA REPLACEMENT PARTS

7.1 - Purchased and installed at an authorized Stara dealerships

In order to maintain the warranty of the genuine Stara replacement parts, they are required to be purchased and installed by authorized Stara dealerships.

So that the warranty can be honored, the original receipt for the genuine Stara replacement part, along with the Service Order for the installation of the replacement part on the implement will be required as proof for the warranty period.

7.2 - Third party installation of purchased Stara authorized replacement parts

Third party installation of purchased Stara authorized replacement parts, are covered exclusively under the legal warranty of 90 (ninety) days, against defects when proven to be due to the manufacturing defects.

So that the warranty can be honored, the original authorized dealer receipt of purchase will be required, to prove its validity for the warranty period.

- Important

  The warranty of the Stara genuine replacement parts, like the implement's warranty, do not cover the natural wear of the parts, as long as it does not deal with manufacturing defects.

  Stara will only honor warranties of genuine parts purchased at authorized dealerships.

8 - WARRANTY OF GENUINE STARA ACCESSORIES

8.1 - Purchased and installed at Stara authorized dealerships

In order to honor the warranty of the Stara accessories, they must be purchased and installed by authorized Stara dealerships. So that the warranty can be honored, the original receipt for the Stara genuine accessory, along with the Service Order for its installation on the implement will be required as proof for the warranty period

8.2 - Third party installation of purchased Stara authorized accessories

Third party installation of purchased Stara authorized genuine accessories, are covered exclusively under the legal warranty of 90 (ninety) days, against defects when proven to be due to the manufacturing defects.

So that the warranty can be honored, the original authorized dealer receipt of purchase will be required, to prove its validity for the warranty period.

- Important

  The warranty period for genuine Stara accessories is exclusive and has nothing to do with the warranty period of the implement.

  The warranty of the Stara genuine accessories, like the implement's warranty, do not cover the natural wear of the parts, as long as it does not deal with manufacturing defects.

9 - IMPORTANT INFORMATION

9.1 - Accessories, replacement parts and modifications to your implement Stara

A vast number of replacement parts and accessories, but not genuine to Stara implements are available on the market. Using these accessories or replacement parts, can affect the safety and operation of your Stara implement, even though that these products have been approved by current local laws. Stara S/A The Agricultural Implements Company, does not accept responsibility for and does not warrant these replacement parts or accessories, nor their installation or usage.

The implement should not be modified with non-genuine products. Modifications with products non-genuine Stara can affect its performance, safety and durability.

Damages or problems which are the result of these types of modifications will not be covered by the warranty.

10 - SCHEDULED MAINTENANCE LOG

Implements	Technical Delivery Check-up	100 hours Check-up	250 hours Check-up	500 hours Check-up	1000 hours or 1 year Check-up	End of warranty visit
Self-propelled	x		x	x	x	1 year or 1000 hours
Sprayers Drawn/Hitched	x					6 months
Planters and Seeders	x					6 months
Spreaders	x					6 months
Headers	x					6 months
Technology equipment	x					1 year
Tractors	x	x	x	x	x	1 year or 1000 hours
All other implements	x					6 months

WARRANTY REGISTRATION
CLIENT COPY

BRUTTUS 6000 SPREADER

CLIENT AND IMPLEMENT INFORMATION REGISTRATION

IMPLEMENT:	
MODEL:	
SERIAL NUMBER	
INVOICE DATE:	
OWNER'S NAME:	
ADDRESS:	
CITY:	
STATE:	COUNTRY:

ACKNOWLEDGMENT RECEIPT OF WARRANTY CLAIMS TERMS

I do hereby declare through this witness, that I have received, read and I am aware of the terms and conditions contained in the warranty document, which was delivered by an authorized Stara representative.

OWNER'S SIGNATURE: _____

NAME OF THE AUTHORIZED STARA DEALERSHIP: _____

ADDRESS OF THE AUTHORIZED STARA DEALERSHIP: _____

STAMP OF THE AUTHORIZED STARA DEALERSHIP: _____

SIGNATURE OF THE AUTHORIZED STARA DEALERSHIP:_____

WARRANTY REGISTRATION
DEALERSHIP COPY

BRUTTUS 6000 SPREADER

CLIENT AND IMPLEMENT INFORMATION REGISTRATION

IMPLEMENT:	
MODEL:	
SERIAL NUMBER	
INVOICE DATE:	
OWNER'S NAME:	
ADDRESS:	
CITY:	
STATE:	COUNTRY:

ACKNOWLEDGMENT RECEIPT OF WARRANTY CLAIMS TERMS

I do hereby declare through this witness, that I have received, read and I am aware of the terms and conditions contained in the warranty document, which was delivered by an authorized Stara representative.

OWNER'S SIGNATURE: _____

NAME OF THE AUTHORIZED STARA DEALERSHIP: _____

ADDRESS OF THE AUTHORIZED STARA DEALERSHIP: _____

STAMP OF THE AUTHORIZED STARA DEALERSHIP: _____

SIGNATURE OF THE AUTHORIZED STARA DEALERSHIP:_____

TECHNICAL DELIVERY TERMS

BRUTTUS 6000 SPREADER

(This form must be completed by the technician)

DOCUMENT - CLIENT COPY

DELIVERY DATE:_____/_____/_____
DEALERSHIP INVOICE: _____DATE: _____/_____/_____
FACTORY INVOICE: _____DATE: _____/_____/_____

CLIENT INFORMATION

NAME:	CONTACT:
ADDRESS:	
CITY:	UF:

PRODUCT INFORMATION

MODEL:	
MANUFACTURED DATE:	SERIAL Nº:

TECHNICIAN RESPONSIBILITIES

( ) Check general conditions of the machine (defects, dents and others);

Notes:_____

( ) Hitch-up the spreader to the tractor and check all systems (hydraulic and electrical).

( ) Operate all systems.

( ) Check wheel tightness.

( ) Deliver the instruction manual.

( ) Tire pressures.

( ) Check and grease all grease fittings.

TRAINING THE OPERATOR ON

( ) Wheel tightness.

( ) Using the safety chain on the hitch.

( ) Using the support stand.

( ) Using the operational systems (hydraulic and electrical).

( ) Using the safety screen.

( ) Cautions with the tanks.

( ) General lubrication.

( ) The instruction manual, warranty terms and warranty registration.

( ) Safety procedures described in this manual.

ADDITIONAL INFORMATION

_____
_____
_____
_____

We declare that the machine referenced in this document, is being delivered under normal working conditions of use, as described and, with the various adjustments and instructions.

_____, _____ / _____ / _____

Location Date

_____

CLIENT SIGNATURE

_____

TECHNICIAN OR REPRESENTATIVE'S SIGNATURE

TECHNICAL DELIVERY TERMS

BRUTTUS 6000 SPREADER

(This form must be completed by the technician)

DOCUMENT - DEALERSHIP COPY

DELIVERY DATE:_____/_____/_____
DEALERSHIP INVOICE: _____DATE: _____/_____/_____
FACTORY INVOICE: _____DATE: _____/_____/_____

CLIENT INFORMATION

NAME:	CONTACT:
ADDRESS:	
CITY:	UF:

PRODUCT INFORMATION

MODEL:	
MANUFACTURED DATE:	SERIAL Nº:

TECHNICIAN RESPONSIBILITIES

( ) Check general conditions of the machine (defects, dents and others);

Notes:_____

( ) Hitch-up the spreader to the tractor and check all systems (hydraulic and electrical).

( ) Operate all systems.

( ) Check wheel tightness.

( ) Deliver the instruction manual.

( ) Tire pressures.

( ) Check and grease all grease fittings.

TRAINING THE OPERATOR ON

( ) Wheel tightness.

( ) Using the safety chain on the hitch.

( ) Using the support stand.

( ) Using the operational systems (hydraulic and electrical).

( ) Using the safety screen.

( ) Cautions with the tanks.

( ) General lubrication.

( ) The instruction manual, warranty terms and warranty registration.

( ) Safety procedures described in this manual.

ADDITIONAL INFORMATION

_____
_____
_____
_____

We declare that the machine referenced in this document, is being delivered under normal working conditions of use, as described and, with the various adjustments and instructions.

_____, _____ / _____ / _____

Location Date

_____

CLIENT SIGNATURE

_____

TECHNICIAN OR REPRESENTATIVE'S SIGNATURE

TECHNICAL CHECK-UP

BRUTTUS 6000 SPREADER

(Calibrations and client training)

Check-up to be done within 6 months after delivery.

DOCUMENT - CLIENT COPY

CHECK-UP DATE:
Nº OF HECTARES:

SERIAL Nº:	Nº OF HOURS:
OWNER:	DATE:
CITY:	UF:
DEALERSHIP:	
TECHNICIAN:	

DESCRIPTION OF SERVICES RENDERED

( ) Check general implement conditions.

( ) Train regarding proper working conditions.

( ) If necessary, review the transmission adjustments in general.

( ) Train the operator by calibrating the implement .

( ) Instruct regarding periodic maintenances.

We hereby declare that the referenced machine of this form has gone through a check-up and orientation procedure, according to the instructions contained in the technical delivery terms.

DEALER'S STAMP AND SIGNATURE:_____

CLIENT'S SIGNATURE:_____

Stara
Constant Evolution

TECHNICAL CHECK-UP

BRUTTUS 6000 SPREADER

(Calibrations and client training)

Check-up to be done within 6 months after delivery.

DOCUMENT - DEALERSHIP COPY

CHECK-UP DATE:	
Nº OF HECTARES:	

SERIAL Nº:	Nº OF HOURS:
OWNER:	DATE:
CITY:	UF:
DEALERSHIP:	
TECHNICIAN:	

DESCRIPTION OF SERVICES RENDERED

( ) Check general implement conditions.

( ) Train regarding proper working conditions.

( ) If necessary, review the transmission adjustments in general.

( ) Train the operator by calibrating the implement .

( ) Instruct regarding periodic maintenances.

We hereby declare that the referenced machine of this form has gone through a check-up and orientation procedure, according to the instructions contained in the technical delivery terms.

DEALER'S STAMP AND SIGNATURE:_____

CLIENT'S SIGNATURE:_____

STARA S/A - INDÚSTRIA DE IMPLEMENTOS AGRÍCOLAS
Av. Stara, 519 - Caixa Postal 53 - Não-Me-Toque - RS - Brazil
Phone/Fax: +55 54 3332-2800 - CEP: 99470-000
e-mail: faleconosco@stara.com.br